

**Federal Source Water and Wellhead Protection Workshop  
For the U.S. Forest Service and Bureau of Land Management  
April 27-28, 2005, Hood River, OR**

The current period is a critical time in source water protection (SWP) in a changing environment of Federal management plans and new information being gathered by the states through source water assessments. As a new phase in SWP rapidly approaches, the need to share the new information and collaborate across both state and Federal levels is necessary to protect source water; and therefore protect the drinking water of millions of Americans.

EPA Region 10 hosted a workshop to provide U.S. Forest Service (FS) and Bureau of Land Management (BLM) planners with tools, information, and contacts that will allow them to effectively incorporate SWP into BLM Resource Management Plans and Forest Plans. Workshop objectives include: describing how to include SWP in BLM and FS plans; providing resources and support to help attendees do it well; and enhancing coordination and communication among BLM, FS, EPA, and state agencies.

### **Greetings and Introductions**

Mike Gearheard, Director, Office of Water and Watersheds, EPA Region 10, opened the workshop by emphasizing the need for protecting sources of water to ensure quality drinking water is delivered to the customers, and to sustain a healthy environment.

He described a goal to “live off the interest instead of the principle.” This means to protect and preserve the watersheds as a long-term commitment to provide quality drinking water. Thirty years after enactment of the Safe Drinking Water Act (SDWA), the focus is on SWP. Greater protection of drinking water sources leads to lowered treatment and filtration costs. EPA’s priority is increasing multi-agency communication between water systems, SWP planners, BLM/FS, and tribes. While the Clean Water Act and various drinking water programs target point source pollution, a focus on non-point source pollution, such as urban and agricultural runoff or logging operations, is also needed. The purpose of the workshop is to bring awareness of the threats facing source water and to address it through collaboration, best management practices (BMPs), and discussion.

Socorro Rodriguez, Director, Oregon Operations Office, EPA, stressed that, if the Federal Government takes the lead on SWP, the states will follow. With drinking water protection stewardship comes power and responsibility. Managing large tracks of land requires discretion. The National Forests were established in 1897, securing favorable watersheds and ensuring flow of drinking water. In 1976, the Federal Land Policy and Management Act called for sustainable management of lands for present and future generations. Nationally, in 2000, about 25 percent of the U.S. population served by public water systems (or 60 million people) in 3,400 towns and cities—plus campgrounds and other uses—received its drinking water from watersheds managed by the Forest Service. It is easier to prevent contamination than it is to clean it up. SWP is a high priority, but needs to be practiced more thoroughly. Another goal is to merge SWP with the

long-term viability of the eco-system. Expertise and sharing are critical to success of protecting drinking water. SWP fuses land use and protection.

## **Federal Overview of the SWP Program**

Jennifer Parker, EPA, provided additional background on SWP. Before SWP, there was the wellhead protection (WHP) program, which focused on ground water protection plans drawn up by the states and approved by EPA. The steps of WHP are to determine wellhead protection areas (WHPAs) and identify potential contaminant sources within these protection areas. Based on that, states developed a plan to protect wellheads from the contaminants in the area, and contingency plans to address responses to contamination.

The 1996 SDWA Amendments required source water assessments for every public water source in the state. Assessments are a four-step process: (1) delineate source water areas for every source; (2) identify potential contaminants and threats to the source; (3) determine the susceptibility of the source to each type of threat; and (4) communicate the results to the public.

Other key points Ms. Parker raised during the presentation include:

- A core principle of SWP is that communities should only have to treat drinking water for naturally occurring pollutants.
- EPA's goal is that by 2008, 50 percent of Community Water Systems will be implementing source water protection programs.
- The best way to prevent drinking water contamination is through SWP. This protects human health and helps avoid high treatment costs.
- All Federal agencies must comply with state programs and their specific requirements.

## **Making the Case for SWP**

Marie Jennings, EPA, continued to make the case for SWP. Only 0.3 percent of the world's water is fresh and usable. Of that, 11 percent is used for drinking water. Fresh water is a finite resource, and it becomes too expensive to treat water once it is contaminated. Ms. Jennings explained that water use in the West is leveling off, despite population increases, due to new conservation techniques and public awareness. While this is an important step, more must be done. Ground water storage is shrinking—this affects the quality of water and the environment surrounding the source.

She presented a video produced by Idaho Association of Cities, which detailed the argument for SWP from the perspective of small rural communities in Idaho. The video explained that there is now a larger population using a finite supply of available water. Local leadership must pass current efforts to protect sources—this can require vision, initiative, and courage. The video

highlighted the experiences of Twin Falls, which had political leadership to protect its source and Glen Ferry, where the water was contaminated and since been cleaned up, but the public still does not have complete faith in the water quality.

Other key points of the video include:

- It is necessary for local leaders to participate in SWP. No one else is protecting the source. Communities can rally behind their leaders.
- Public education is imperative, because everyone wants clean drinking water. It is important to keep citizens updated on efforts and to work on getting them involved.
- Water is the basis for growth in small communities. Without access to drinking water, a community will disappear. SWP takes a long time but is rewarding and people are very receptive and willing to actively engage in SWP.

### **State SWP Programs**

Representatives of the four states in Region 10 described their state's source water assessments and individual requirements. Each speaker fielded questions during or after his or her presentation.

#### ***Alaska***

Suzan Hill, Alaska Department of Environmental Conservation presented the highlights of Alaska's SWP program. The State has completed 1,668 source water assessments for its 1,427 drinking water systems. It has identified multiple protection zones for different types of sources and identified and ranked all contaminants and threats that may pose a risk to source water.

Ms. Hill noted that finishing the assessments is the first stage of promoting awareness of the threats to source water. The next step is working the data into planning: the assessments are tools to be used by the public water system and all those involved in SWP planning. The data can be analyzed and studied to determine the most appropriate measures to protect source water. She noted that one problem with SWP and WHP programs is that these are voluntary and there is no jurisdiction for enforcement.

*Does Alaska only have unconfined aquifers?* No - Alaska has a wide range of aquifer types, including fractured bedrock.

*Are there rules for well abandonment?* There are state laws for well abandonment but there are no certified well drillers and no enforcement of correctly decommissioning wells.

*What are some of the problems for enforcement in Alaska?* Alaska has problems with enforcement because of the rural, remote, and cultural conditions.

## ***Idaho***

David Risley, Idaho Department of Environmental Quality, said that Idaho has completed 3,000 source water assessments for 2,100 systems in the State. Of these sources, 67 percent are under Federal control. The assessments used both the fixed radius and analytical element model. For lakes, the source water area is a 500-foot buffer. For intakes, the area is either 25 miles upstream or 4 hours time of travel, whichever is larger.

*How did Idaho decide on the 500-foot buffer?* Through compromise and local collaboration. The buffer was originally set at 2,000 feet; however, it was determined that 500 feet allows for identifying and addressing contamination, and SWP planning. Mr. Risley noted this is not enforceable, but used to determine potential threats to water.

*How was the 25 miles upstream from the intake boundary determined?* Some limits had to be put on what was considered reasonable. Including the entire watershed would require up to four states working together, so for purposes of the assessments, it was easier to impose boundaries and this is the compromised solution.

*Does Twin Falls get its water from Snake River?* Twin Falls does not get its water from the Snake River because treatment costs would be too high. The water comes from numerous wells in the area.

## ***Oregon***

Sheree Stewart, Oregon Department of Environmental Quality, presented the highlights of Oregon's SWP program. Oregon's program is a joint effort by the Department of Human Services and the Department of Environmental Quality. She stated that the 1170 source water assessments will be completed by June 30, 2005. In completing the assessments, Oregon has worked closely with other state programs and the United States Geological Survey to create GIS maps of all the sources. The state used 5<sup>th</sup>-field hydrologic unit code (HUC) sub-basins, if available, to delineate the watersheds. Oregon also used fixed radius and analytical element models to determine source water areas. She noted that the assessments were done very thoroughly to provide the highest quality information possible. The State, after identifying all the potential sources of contaminants it could locate within each protection area, recommended that those contaminants the community considered significant (based on risk analysis) be addressed during the development of a protection plan.

Ms. Stewart also noted that Oregon communities are growing rapidly, and now is the time to implement drinking water protection planning (or source water protection, SWP). She said it is currently easier for communities to fund treatment than protection but this will not always be the case.

*What were the enforceable levels of protection?* Developing a Protection Plan is voluntary in Oregon and there are no new enforceable actions for SWP outside of the existing

regulatory requirements on sources. The willingness to protect the watersheds and groundwater recharge areas must come from community officials and individuals willing to actively engage in SWP.

### ***Washington***

David Jennings, Washington Department of Health said the State used many methods to determine protection areas. Washington is using GIS to target places to inspect for possible sources of contamination, focusing on sources that could impact the drinking water supply. He said the key to the program's success was turning data into knowledge. Assessment information is used in watershed planning; state management plans for pesticides; permitting, land use, and regulatory decisions; targeting outreach and compliance; and informing federal planners, consultants, and citizen groups.

*Why is there no standard source water area, and how is this reconciled?* The Safe Drinking Water Act allows each state to decide how best to define its source water areas. Within these source water areas, attention is focused on threats that are identified. The size of a source water area is determined at the state level and refined using a reasonable set of parameters to effectively protect a source.

*What is being done to capture issues with stream crossing and roads?* The 911 system can be helpful in getting information out. State patrols can be used in an emergency to let public water systems located downstream know what is happening.

*How are the conflicting interests in watershed management and improving forest health through targeted fuel management reconciled?* This is a sensitive question, because when the forest burns, it can affect the watershed's water quality if increased erosion and runoff increases turbidity and suspended solids. The fuel load needs to be considered and collaboration is necessary to ensure health of the forest while actively protecting watershed.

*What are the contaminants in the watershed on Federal lands?* The two biggest problems of non-point source pollution are turbidity and pesticides.

### **Panel Discussion—Drinking Water Protection and Federal Agency Planning**

The four state representatives and Jennifer Parker and Denise Clark of EPA discussed expectations for drinking water protection related to federal agency planning. David Jennings presented the desired future of collaborating for SWP and providing safe, reliable drinking water. SWP is important in day-to-day activities including scoping, setting protection priorities, pollution notification, and ensuring proper use of BMPs. This is accomplished through local participation and outreach with, at minimum, Federally regulated systems. Identifying contacts for inter-agency communication is necessary—these contacts are helpful for providing GIS mapping information, as a source for answers to questions, document review, and involvement in scoping and planning development. Management of Federal lands, ideally, would moderate the

cumulative effects within the rest of the watershed, including protecting source waters from sediment loading, grazing impacts, pesticides, and fuel loads. Wells must be included in the analysis as they can be forgotten. The Federal agencies can serve as role models and land use stewards.

*The participants of this workshop are in the business of providing drinking water and are an important group to help with planning efforts. How do the states plan on plugging into the FS and BLM planning processes?*

Mr. Risley said the first step is identifying the contacts in each agency who can provide information. It is important to communicate activities across agencies and follow the process of the FS and BLM. Also important is getting information out to local foresters state-wide. Ms. Stewart added that the process works best if communication is initiated by the Federal land management agencies, rather than state agency or individual water systems. It is important for states to maintain contact with the Federal agencies because there are a common set of priorities to encourage meaningful cooperation.

*The focus is shifting from assessment to protection, and the states do not have many resources. The support of the FS and BLM is necessary, and getting information out at the local level important.*

Ms. Hill said Alaska is in a unique position because state employees know each other and inter-division cooperation is good. She said that it cannot be assumed that protection measures are represented at the state drinking water level, and personal contacts are needed. The support of the FS and BLM is important.

*With changes to the FS/BLM planning process and the National Environmental Policy Act (NEPA) Environmental Impact Statement process, how does the state give feedback on planning?*

Mr. Jennings responded that the Washington State Dept of Health has not previously been active in providing comments on federal land use planning but is interested in ensuring source water protection considerations are included in future federal planning efforts.

*Is there any feedback on SWP for land management services?*

Mr. Jennings answered that this has not happened, yet—but this is another area for growth.

*What triggered the need for a SWP workshop?*

Ms. Stewart said the source water assessments are complete and the states have a wealth of information to share with FS and BLM for planning. This workshop will lay the groundwork for better coordination and communication for the next step in SWP.

*Are there any particular concerns for the new round of FS and BLM planning?*

Mr. Jennings noted that recent federal management of water quality and watersheds has been good, but had questions about changes resulting from the revised interpretation on implementing the Aquatic Conservation Strategy (ACS). Ms. Stewart reminded the group that it is important to have a model for working together with Federal agencies to incorporate SWP into planning. There are hosts of other planning issues the FS and BLM must include, like protecting fish. Oregon wants to ensure that SWP remains a high priority. State mapping information can be used to form the basis of some decisions, and relaying this information is critical. Mr. Risley expressed interest in ensuring that Federal issues such as grazing and fuel loads are addressed, while recognizing the needs of SWP programs.

*How can the FS and BLM receive state GIS mapping information?*

Mr. Jennings said this information is available from each state, within the bounds of various security protocols.

*Are there any security issues associated with giving out GIS information?*

Mr. Jennings explained that there is no reason to restrict information exchange among agencies. However, more scrutiny and judgment are necessary for public distribution. For example, some states do not provide latitude and longitude of intakes or source water areas to the public.

*Idaho DEQ works with regional offices. Does this regional communication and relationship stand with SWP?*

Mr. Risley answered that working with regional offices is very important, but in Idaho there is a high turnover rate. DEQ has contact people for GIS information and for program issues.

*What level of understanding of Federal program policies do states want?*

Mr. Jennings said the WSDOH does not have the resources to participate actively in many federal planning efforts. The highest priority is ensuring drinking water protection is included in Federal-level discussions. WSDOH is looking for assurance that federal agencies manage watersheds for source water protection, understand the significance and impacts of impaired source water to drinking water systems, and use the appropriate available tools and BMPs. Ms. Hill said the program would like to have the plans available and be kept informed of the planning process. Mr. Risley wants to talk about what data needs to be shared. Ms. Stewart expressed that Oregon SWP staff do not want to provide detailed input on every management plan, but want to rely on Federal leadership encouraging protection and not just treatment. She added that this panel discussion appears to be the beginning of such a conversation.

Additional points from this panel discussion include:

- Kitty Weisman mentioned that the National Rural Water Association (NRWA) and its state affiliates are the link between outreach and disseminating information to local communities. NRWA staff are SWP specialists on planning and enforcement who act as liaisons at the local level. The SWP specialists at NRWA are funded by EPA and USDA.
- Mr. Jennings suggested that a clearinghouse for state agencies to disseminate information would be very useful.
- Bruce McCammon of the FS described communication as a two-way street. He said both sides can be overloaded with work. The FS and BLM are under incredible pressure to adhere to a multitude of regulations and agendas on land management. SWP is a priority, but patience is necessary.
- FS and BLM should provide the best quality water and, if a source water area is on their lands, it is important for them to actively participate in protecting the source regardless of who owns or operates the drinking water system.
- Continuous source water monitoring is very important.
- Engagement and activity at the local level are crucial components of SWP.
- States and the public need to be able to provide feedback and discuss environmental concerns of the FS and BLM land management plans.
- The FS and BLM do not have to face the shortfalls alone. Water systems are interested in building partnerships for SWP. It may be tedious at first, but in the end, the work load is shared and the payoff is greater than acting alone.

### **The Economics of Source Water Protection**

Eric Winiecki, EPA, described the economics of SWP. He stressed that sustainability is critical: with the increasing demands on water supplies in the West, it is important to not deplete the “principle,” but instead “live off the interest.” This means not withdrawing more water from the storage system than enters it each year from precipitation. This benefits both water systems and eco-systems. SWP leads to cleaner water, which lowers health risks and decreases treatment costs. Other benefits of SWP include improved opportunities for recreation, commercial fisheries, shellfish harvesting, and irrigation, as well as safeguarding the resource and improving consumer confidence. Drinking water is a necessity, and if a community’s water becomes too polluted or too costly to treat, the town will dry up, especially if it is a small system.

Mr. Winiecki provided evidence that SWP is less expensive than contamination based on studies comparing the cost of treatment at contaminated systems and the cost of SWP for the



system. The ratio of clean-up to SWP costs in the communities studied ranged from 5:1 up to 200:1, averaging 27:1. It would have been much cheaper for each system to implement some sort of SWP instead of cleaning up the water system after contamination. He also noted that, for every 4 percent increase in raw water turbidity, treatment costs increase 1 percent. It is better for the entire community to protect the source than wait for an emergency.

## **Source Water Protection Case Studies**

### ***Eugene, OR***

Karl Morgenstern, Eugene Water and Electric Board, discussed the system's efforts to protect its source, the McKenzie River. A key point of Eugene's SWP plan is multi-faceted cooperation and communication with other state and Federal agencies, the private sector, and the public. Its SWP plan includes increasing public awareness and participation, comprehensive monitoring, evaluating all sources of potential contamination, and creating an emergency response plan.

- The system looked at threats of contamination closely and identified urban runoff as the biggest concern. GIS mapping allowed for quick determination of where contaminants entered the watershed and how to relieve the situation.
- Emergency preparedness activities included placing emergency equipment along the McKenzie River and creating programs for emergency responders that detail system inventory, and courses of action in the event of various emergencies.
- Outreach included partnerships with state agencies, an eco-friendly certification program, and working with the local high school to monitor specific areas of the watershed.

Mr. Morgenstern noted that the water system was an active participant in the watershed spill response program. Close communication with agencies on site histories is important in addressing releases of hazardous materials. With more information, these types of problems can be minimized, and affecting a solution can happen much quicker. He also looks for the future where FS and BLM maintenance facilities are eco-certified.

### ***Ginger Springs, OR***

Alan Buchta, BLM, introduced the Town of Butte Falls, a small town in Oregon born out of foresting in 1906. The City receives its water from Ginger Springs, which has continually provided fresh water to the Town. The spring is interesting because the flow of the spring and rainfall do not appear to be correlated. As the timber industry weakened in Butte Falls, the money left. Marked improvements to the water distribution system and a treatment upgrade were needed, as herbicides are a chief potential contamination concern.

Mr. Buchta worked with the BLM through a program that examined alternative strategies to keep rural based communities viable. The program helped upgrade the treatment and distribution system to ensure Ginger Springs provided the best possible water. Butte Falls started an art festival and opened a “discovery loop” tour to increase tourism in the Town. BLM also created a long-term management plan for protecting the water supply and minimizing contamination. Timber, although a waning industry, was used to finance the plan. Recommendations from the plan included a hazardous materials plan, minimizing chemical toilets, use of fuel pads for trucks, prohibiting herbicides, and not using fertilizer. As a result of this program, life has returned to the community and Ginger Springs is currently bottling water to share its community spirit and ensure the sustainability of the Town.

Ginger Springs’ experience demonstrates that water can be a source of economic development. Timber built the town, and water saved it. Through a cooperative effort of a rural community and the BLM, the town has come back to life.

### ***Alaska's National Forests***

John Gier, USFS, described two situations in Alaska where FS decisions on timber sales were impacted by citizen concerns about water quality.

He first described Saltry Cove, an area on Prince of Wales Island, where the FS proposed a timber harvest. The proposed project included construction of a road that would have crossed through a source area for a Class B public water system. The water system operator and local citizens questioned whether the proposed road would cause degradation of the quality of their drinking water. The FS conducted review of the potential to impact water quality and determined that stream crossing impacts could have been mitigated. However, the FS decided to defer the timber sale.

Another proposed timber sale that did not move forward after water quality concerns were raised was at Whipple Creek on Revillagedeo Island. The watershed is of mixed ownership, with FS lands in the headwaters area. There was an existing water quality issue in the watershed at the time when the FS proposed a timber sale. The lower 2/3 of the watershed had been harvested by non-federal entities, and clear cuts and road systems were impacting water quality. The FS proposed a timber harvest of 4 clear-cut units within the upper 30% of the basin, on FS lands. A Class A public water system is located in the lower portion of the basin. The public water system users protested the proposed FS timber harvest because of concerns that the FS activities could potentially impact water quality. The FS staff reviewed the proposed harvest activities to determine whether they would significantly add to the already existing water quality impairment and determined that it would be difficult to quantitatively verify that they did not cause further impairment of the source water. The District Ranger chose to not move forward on the proposed timber sale.

Mr. Gier also provided handouts on water quality technical aspects, and BMP standards and guidelines for water quality from the Tongass Land Management Plan.

## **Agency-Specific Planning Rules and Regulations, and Incorporation of SWP**

### ***NEPA Issues and SWP***

Denise Clark, EPA, introduced the National Environmental Planning Act (NEPA) and the necessity of incorporating environmental considerations into agency planning. NEPA aims to increase public awareness and input to proposed projects, ensure consistency with state and Federal requirements, and help maintain the quality of the environment. This requires incorporating SWP into plans and projects through identifying source water areas that could directly or indirectly be affected by a project, inventorying potential contaminant sources, and planning to ensure there is no contamination and to identify remedies in the event of contamination.

Ms. Clark stressed the need for communication during planning in order to reach the best possible decision. This means working with the state and using GIS mapping information to identify watershed areas and potential contaminants in the area. (Contact information is provided at the end of the notes.) Also, contact with the local water system operator is important to identify threats to the source, local SWP concerns, and appropriate BMPs. Involving the public and/or tribes is crucial. It is necessary to include contact information and SWP goals in the plan.

EPA is looking forward to working with the BLM and USFS to incorporate language to address protection of source water protection areas for drinking water into revised RMPs and Forest Plans.

### ***New FS Model Plan***

Phil Mattson, Assistant Director, Resource Planning and Monitoring, FS, described the new planning model for the FS. The final planning rule, signed on January 1, 2005, provides a new way of *planning for land management*, rather than specific land management practices. Plans can be adopted through a new Categorical Exclusion, so neither an Environmental Impact Statement (EIS) or Environmental Assessment (EA) will be required. The plan components are not considered “final agency actions.” Guidelines replace standards and, where appropriate and with adequate explanation, a specific project will be exempted from a specific guideline. The planning rule calls for contributing to ecological, social and economic sustainability.

The new rule does not affect project level analysis and has no effect until a plan is amended or revised. It encourages public, tribal, and other Federal agency involvement. The rule is intended to make forest plans more strategic than plans have been in the past. The planning rule is intended to result in plans that are environmentally sound, use the best available science, and are developed through a collaborative process. Plans will be subject to an objection process rather than an appeal process.

Mr. Mattson noted these plans are intended to be adaptable documents that can be revised to address new conditions, new science or changing social values. Some aspects of each plan will be monitored using an Environmental Management System (EMS). Training is being provided to Forest Service and other agency staff.

### ***BLM Planning Guidance***

Jerry Magee, BLM Environmental Protection Specialist, OR/WA State Office Planning Program, described the BLM planning process, starting from a broad national level down to site-specific project planning. Mr. Magee stressed that SWP inventories and assessments are appropriate inputs to equivalent scales of the BLM planning process. The planning process mirrors the NEPA process in its focus on issues, exploration of a range of alternatives and encouragement of public involvement. Land use planning decisions (made in Resource Management Plans or RMPs) describe desired outcomes in the form of broad goals, management objectives, and management actions (e.g., special area designations) to achieve the goals and objectives. They also establish allowable uses and general restrictions over broad areas. Subsequent implementation-level decisions set site-specific priorities, establish Best Management Practices, and define site-specific use limitations. The planning process involves intergovernmental and public cooperation, coordination and collaborative problem-solving to achieve resource goals and objectives across broad areas of mixed ownership.

There are several differences between the BLM planning process and the new FS planning rule. Although primary process steps and plan components are similar, the BLM planning process retains the broad direction and resource allocation components (e.g., areas open and closed to mineral leasing, utility corridors, right-of-way avoidance and exclusion areas, and Areas of Critical Environmental Concern) that require compliance with NEPA through an EIS (plan revisions or major amendments) or an EA (minor amendments). The BLM State Director retains approval authority for RMPs, while the Forest Service has delegated Forest Plan approval to the individual Forest Supervisor level.

### ***Panel Discussion***

Ms. Clark, Mr. Mattson, and Mr. Magee led a discussion and took questions on the new FS planning rule and BLM planning process to help participants understand the similarities and differences in the processes and how they affect and incorporate SWP.

*A stated goal of the plans is more Tribal involvement. How is this realized?*

Mr. Mattson responded that both Forest Service and BLM planning processes involve extensive coordination with Tribes in addition to required government-to-government consultation with the Tribes.

*Coordination and communication with the public on the forest plans used to be through the EIS.*

*If this step was removed from the planning process, what is the framework for public involvement?*

Mr. Mattson responded that development and review of comprehensive evaluation reports on FS plans requires public participation and that the planning rule identifies other specific opportunities for public involvement, including development of plan components and the monitoring program. It is hoped there will be public involvement throughout. Mr. Magee added that, while NEPA was the driver of public involvement, dropping NEPA would not drop public involvement in either agency's process. All that is changing is *how* the public is being involved.

*What are additional avenues for public involvement?*

Mr. Mattson said the FS is holding public meetings in many communities in both states. Mr. Magee said BLM invites formal cooperating agency status in the RMP/EIS process in response to recent CEQ guidance. BLM planning efforts now include a host of Federal, State, Tribal and local government cooperating agencies who are afforded more active roles in the planning process. Initiation of the scoping process is announced in the *Federal Register*, and mailings and news releases further invite public comments. EIS process components are still used to get the public involved in the actual process.

*Will project-specific type situations (e.g., 5<sup>th</sup>-field HUC information) be included in Resource Management Plans?*

Mr. Magee said project-specific information will be included, but BLM planning decisions are primarily at the broad scale, with finer-scale decisions being deferred to subsequent implementation-level planning and analysis.

*Will BMPs be included in the plans?*

Mr. Magee answered that BLM plans include lists of BMPs from which to choose. The more specific determination of which BMPs to use will be addressed in subsequent implementation-level analyses and decisions. Mr. Mattson said the guidelines in the FS plans will show up as BMPs. SWP and other action will be taken by looking at the values to lead to new outcomes but the discretion is left to the plans.

*Is it possible that SWP might not always be part of a plan? How is SWP involved if it is not included in a land management plan?*

Mr. Mattson responded that the Aquatic Conservation Strategy helps to assure SWP. Plans will both provide watershed protection and provide for restoration where needed. Safeguards, such as a board of directors and an interdisciplinary team, will be in place to make sure all competing needs are met.

*How do the FS guidelines differ from standards? Can they be changed at a project level?*

Mr. Mattson explained that if a guideline does not fit a situation, it could be changed at the project level. The project level NEPA analysis would address the need for the exception and its effects.

*Does the new rule allow for the delineation of management areas?*

Mr. Mattson said that it does.

*EPA's big picture objective is high quality water, which requires SWP. Can this be done, both practically and conceptually?*

Mr. Mattson said that in the last 10 years, water quality has increasingly become a high priority for the FS. Many roads have been closed or rehabilitated because of this growing concern. Source water quality is high on FS land. Mr. Magee agreed, and added that the earlier Interior Columbia Basin Ecosystem Project's concept to "protect the best, restore the rest" was dropped out of recognition of BLM's multiple-use mandate and laws (such as the Mining Law of 1872) which allocate some areas to intensive resource use (e.g., mining, leasing and transportation).

*Locals are not in the loop, as planning does not include specific information. Is there any way to be more specific with plans and maps?*

Mr. Mattson said the FS plans will be much more map based with web-based planning. They will be more readable, understandable, user friendly, and strategic. Mr. Magee talked about how BLM's attempt to reduce printing and mailing costs is resulting in fewer maps in the actual planning document, but complete sets of detailed electronic maps are made available on CDs and the web.

There were multiple key points of feedback from the discussion:

- For FS planning, a potable water supply is always a concern. Special management situations do not circumvent this priority, but must explain how this need will be met. However, the public still has an obligation to watch and comment. The FS has many competing interests when creating plans.
- Given the limited resources, what is the best way towards SWP? We trust people are doing a good job, but if it is not apparent in the plans that the highest quality water is being provided, then this is a problem.
- SWP works best in the appropriate context of total maximum daily load (TMDL) implementation and water quality restoration plans. The headwater quality must be good and work in context for the downstream issues.

- SWP is a main concern for the new planning rules and the FS and BLM consider watershed protection a high priority.

### **Getting Specific about Measures and Practices**

David Powers, EPA, spoke about the specifics of incorporating SWP into land management plans. He described the history of watershed protection, noting this should be the current number one priority for land management. The most sensitive designated uses of water are public water supply and salmonid spawning and rearing. The FS and BLM are involved in protecting drinking water sources and need to include this in their planning. The biggest threat currently facing the water is non-point sources of pollution (point sources have largely been dealt with). BMPs are still the best way to protect the watershed from nonpoint source pollutant loads.

Plans should have clear management objectives of providing the best quality and quantity of water, while taking into account the economic and social vitality of the area. For example, the Bear Creek resource management plan explicitly identifies protecting the watershed and the surrounding eco-system as a priority. This is accomplished with BMPs.

BMPs, defined broadly, are process requirements, planning measures, notification requirements, project design criteria, and management systems. In this situation, these are proven techniques that simplify the decision-making process and are the best ways to protect source water. Mr. Powers referenced the “EPA Region 10 Source Water Protection Best Management Practices for USFS, BLM.” This document combines information from a variety of sources and includes a wide array of BMPs for a variety of situations. This is envisioned as a living document that will change as necessary. The BMPs listed are necessary for certain activities. They are presented by issue, e.g., grazing, timber management, landfills. The document addresses roads and pesticides, and discusses considerations when working with these issues.

Mr. Powers added that it is important to form partnerships with local water purveyors to process the BMP. Most watersheds managed under the Northwest Forest Plan are improving or staying the same so the Forest Service and BLM are in the business of protecting water quality. There are trade-offs between forest health and water quality that need to be discussed and managed. This is possible by working with tribes, other federal agencies, states, cities, and local communities.

It is useful, for SWP purposes, to treat a public water supply with the same level of planning and protection as we do for protecting salmonids. This is useful because keeping the water clean for fish also keeps the source water clean for drinking. The website: <http://www.or.blm.gov/fcp/salmonids.htm> provides information on protection techniques.

## **BMPs, Incorporating SWP into Plans, and What FS and BLM Are Already Doing**

Dave Powers led a question and answer discussion on the implementation of SWP and the current state of FS and BLM planning.

*BLM requires sustainable timber production and planning must be scaled to match needs other than SWP. How can this be accomplished with riparian reserves and other management restrictions?*

Mr. Powers responded that riparian reserve designation does not mean that land cannot also be used for timber production. It means identifying and protecting a watershed is the key issue. Good management practices will allow all objectives to be met. Mr. Powers said he is pushing this issue because it is so important, but he is not trying to be adversarial. State and Federal agencies can work together. Providing 60 million Americans with high quality drinking water is the highest and best use for the watershed. He reminded the group these priorities are only for areas on FS or BLM land with source water watersheds. Not all FS or BLM lands need to have such a stringent policy.

*Is targeted land acquisition possible for SWP? Can Areas of Critical Environmental Concern (ACECs) be turned over to agencies that will manage them properly?*

Mr. Powers stated that federal agencies are doing a good job of managing ACECs. In cases where land exchange is desired, if it is feasible and workable, this is a great idea. However, land exchange is complicated. There are other programs such as Public Water Reserve and Recreation and Public Purpose, that allow for turning management over to state authority. Public water reserves come out of an Executive Order. Another participant added that ACECs do require NEPA analyses.

*Is it necessary to involve the local county commissioners?*

Mr. Powers said this is very necessary, as the commissioners work in the local communities. It is also important to educate them on the impacts, or lack thereof, of SWP to the county to increase awareness and support.

*Do the current FS and BLM plans not designate water as a highest and best use?*

Mr. Powers stated many current management plans do designate water as highest and best use. However, with the current round of planning and other competing interests, it is important to keep SWP in the forefront. Water quality was improved by the Endangered Species Act and Northwest Forest Plan so the alignment with SWP is good. However, with the changing plans it is important to keep awareness high. There is an opportunity and need to increase the profile of source water planning.



*Melinda Harper, Idaho Rural Water Association, asked, how is planning for historical degradation for the BLM addressed? The Central Shoshone water district mine water runoff is so corrosive that it needs special treatment. Can anything get done? How is reclamation done?*

A BLM representative responded with a general comment that early phases of planning require discussing issues like this one. The trends are improving and we are doing a better job at describing past trends. “No action” is considered a course of action. Plans and projects try to address these source water issues. The Abandoned Mine Land (AML) program also deals with these issues.

A FS representative added that the Environmental Compliance and Protection program and AML program are currently working to inventory all the mines, because the number of existing mines and their effect on source water is unknown.

*Is SWP only for protecting Federal drinking water systems?*

The process and BMPs are useful and usable for all systems, whether overseen by the Federal government (e.g., on Federal lands) or state programs. Feedback is always a necessary component of working these procedures out. Another participant added that the federal drinking water programs need to consider safe and reliable water as a mission, not a program.

*What is the take home message? If the BLM and FS are doing a good job, then where are we falling short? Are we here to raise awareness? Are the planning documents inadequate? Or, are we doing the job, but the plans are not telling the full story?*

An EPA representative said the BLM and FS are doing a good job, but need a higher profile for the next round of plans, assessments and mapping. Risk identification needs to focus on source water in planning. EPA is an ally, and the states have great information to share. New plans need to reflect all this available information. Active land management with a focus on providing safe water is needed. We are not trying to restrict timber production, but rather encourage SWP.

There were also key points made during the discussion:

- David Jennings said States would like to see the extension of BLM and FS planning committees to include local and regional efforts. Subcommittees should continue to integrate assistance into planning. Another participant added that there are inter-agency communication problems, and it helps to acknowledge work at the local level.
- Mr. Powers said we are not trying to reinvent the wheel, but to identify drinking water problems and situations. There is a need to work together and share resources, as cooperation is easier on the budget and worthwhile.

- There is a heightened awareness of drinking water; mapping efforts and planning lead to on-the-ground action.
- A few participants addressed competing protection priorities:
  - Karl Morgenstern, EWEB, stated that the McKenzie River is supplied by eight springs and is ideal for harvesting timber. It is surrounded by a half-mile buffer, and is not subject to run off. He added that a past attempt to tie the SWP program to protecting fish was divisive. Removing the goals of protecting fish and focusing on drinking water brought good support. Protecting drinking water is a politically neutral objective, whereas talking about fisheries is loaded.
  - Risk management is important. For example, Bend, OR, uses water from an un-managed watershed. A fire would have a huge impact on the drinking water supply. There were competing interests of controlled purposeful use of the watershed versus staying out and not causing any human interference or pollution.
- Guidelines and limits are important; and it is preferable to err on the safer side. For example, if a stream buffer is 500 feet, is 450 feet sometimes acceptable? There is a slippery slope, and planners must adhere to the guidelines.
- There was acknowledgement that water rights issues can complicate SWP efforts.

### **Summary, Observations, and Looking to the Future**

Marie Jennings, EPA, concluded the workshop with closing remarks and crowd participation. She noted that planning processes are intricate and it is important to keep terms explicit. However, everyone must remember that we are all working towards a common goal with the limited sources available. Monitoring is key as well as public involvement.

While BLM and FS are already involved in SWP, getting the right contacts and more detailed information is important. There are resource constraints, but these shortcomings can be met through cooperation with other agencies. This workshop has raised awareness of keeping SWP in the forefront of land management.

There are four points to watershed management: (1) protecting source water, (2) restoring through treatment and mitigation of contaminated sources, (3) conserving the current water supply, and (4) collaborating with state and Federal agencies and the public at the local level. Conservation is the one aspect that EPA, FS, and BLM all needed to incorporate into their planning.

A few final perspectives were offered:

- An EPA representative said the source water assessments and maps are in a

comprehensive format and now is the time to turn data into understanding. Mr. Jennings continued this point from the state perspective, adding that the workshop is beginning the next step from assessment to implementation. The new planning provides an opportunity. The next steps are to share the data with FS and BLM and explore how to engage these issues.

- From an EPA perspective, water is a finite resource that must be guarded. EPA is willing to work with its partners to share resources, raise awareness, and provide outreach to local communities. It is time to stress safe drinking water, as fish protection has been controversial. Finally, alignment of source water protection plans will help all agencies understand each other's goals and work together to provide the highest quality product. Ms. Jennings added that it is important to share information. Communication and coordination are important across all levels of participation in SWP. All agencies are limited by their resources, but we all will try to incorporate SWP to the fullest extent possible.
- A Forest Service representative—summing up the presentations and the raised awareness for SWP—said, “I got it.”

<b>Participants at BLM/FS SWP Workshop</b>			
<b>Name</b>	<b>Organization</b>	<b>Email Address</b>	<b>Phone Number</b>
Doug Baird	BLM - Oregon State Office (Engineering)	dbaird@or.blm.gov	503-808-6099
Alan Buchta	BLM -Medford	abuchta@or.glm.gov	541-618-2266
Glen Burcham	Idaho Rural Water Association	gburcham@idahoruralwater.com	W. 208-343-7001 C. 208-850-3343
Dan Carpenter	BLM - Coos Bay	dan_carpenter@or.blm.gov	541-751-4296
Denise Clark	EPA, NEPA Unit	clark.denise@epa.gov	206-553-8414
Cathy Clifton	USFS, Umatilla NF	cclifton@fs.fed.us	541-278-3822
Ervin Cowley	BLM - Idaho	ervin_cowley@blm.gov	208-373-3810
Dan Dammann	BLM - Roseburg	dan_damman@blm.gov	541-464-3287
John Dodd	Mt. Hood National Forest	jdodd@fs.fed.us	541-467-2291
Wayne Elliott	BLM - Eugene	wayne_elliott@or.blm.gov	541-683-6989
John Gier	USFS, Alaska	jgier@fs.fed.us	907-228-6274
Jonathan Haber	USFS, Missoula	jhaber@fs.fed.us	406-324-3399
Melinda Harper	Idaho Rural Water Association	harperm@idahoruralwater.com	W. 208-373-7001 C. 208-761-4118

Participants at BLM/FS SWP Workshop			
Alan Henning	EPA, Eugene, OR	henning.alan@epa.gov	541-686-7838 ext. 251
Suzan Hill	Alaska Dept of Environmental Conservation	suzan_hill@dec.state.ak.us	907-269-7521
David Jennings	Washington State Department of Health	david.jennings@doh.wa.gov	360-236-3149
Marie Jennings	EPA, Drinking Water Unit	jennings.marie@epa.gov	206-553-1893
Dick Jones	USFS, Clearwater NF	rmjones@fs.fed.us	208-476-8274
Ashley LaForge	BLM - Salem	ashley_laforge@blm.gov	503-375-5716
David Lucas	Makah Public Works	pubwks@centurytel.net	360-645-3116
Gordon Lyford	BLM -Medford Sprogue Seed Orchard	gordon_lyford@or.blm.gov	541-476-4432
Jerry Magee	BLM - Oregon State Office, Portland	gmagee@or.blm.gov	503-808-6086
Bob Mallis	BLM - Idaho	bmallis@blm.gov	208-384-3348
Phill Mattson	USFS Region 6, Portland	pmattson@fs.fed.us	503-808-2266
Rosy Mazaika	BLM - Oregon State Office, Portland	rmazaika@or.blm.gov	503-808-6076
Bruce McCammon	USFS Region 6, Portland	bmccammon@fs.fed.us	503-808-2986
Lynne Mcwhorter	EPA, NEPA Unit	mcwhorter.lynne@epa.gov	206-553-0205
Karl Morgenstern	Eugene Water and Electric Board	karl.morgenstern@eweb.eugene.or.us	541-341-8552
Kurt Nelson	USFS, Clearwater and Nez Perce NF	kanelson@fs.fed.us	208-935-4272
Chester Novak	BLM - Salem	chester_novak@or.blm.gov	503-375-5626
Jennifer Parker	EPA, Drinking Water Unit	parker.jennifer@epa.gov	206-553-1900
Rick Patten	USFS, Idaho Panhandle NF	rpatten@fs.fed.us	208-765-8133
Dave Powers	EPA, Oregon Operations Office	powers.david@epa.gov	503-326-5874
David Risley	Idaho Dept of Environmental Quality	drisley@deq.idaho.gov	208-373-0274
Socorro Rodriguez	EPA, Oregon Operations Office	rodriguez.socorro@epa.gov	503-326-3250
Helen Rueda	EPA, Oregon Operations Office	rueda.helen@epa.gov	503-326-3280

<b>Participants at BLM/FS SWP Workshop</b>			
Shawn Stevenson	Oregon Association of Water Utilities	swpfsa@dialoregon.net	503-873-8353
Mike Stevenson	BLM - Idaho	mike_stevenson@blm.gov	208-769-5024
Sheree Stewart	Oregon Dept of Environmental Quality	stewart.sheree@deq.state.or.us	503-229-5413
Paul Strobe	National Rural Water Association	nrwaps@nrwa.org	580-251-9080
Tim Tice	Oregon Association of Water Utilities	gwtech@dialoregon.net	503-873-8353
David Tysz	Evergreen Rural Water of Washington	dtysz@erwow.org	360-981-1516
Kris Ward	BLM - Eugene	kward@blm.gov	541-683-6430
Kitty Weisman	Evergreen Rural Water of WA	cweisman@erwow.org	360-280-3460
Donna Wians	USFS Region 6, Portland	dwians@fs.fed.us	503-808-2526
Eric Winiecki	EPA, Drinking Water Unit	winiecki.eric@epa.gov	206-553-6904

State Drinking Water Contact Information	
State:	Washington
Agency:	Washington State Department of Health, Office of Drinking Water
Name:	David Jennings
Email:	david.jennings@doh.wa.gov
Address:	PO Box 47849 Olympia, WA 98504-7849
Phone Number:	360-236-3149
Website:	<a href="http://www.doh.wa.gov">http://www.doh.wa.gov</a>
State:	Idaho
Agency:	Idaho Department of Environmental Quality
Name:	David Risley
Email:	drisley@deq.idaho.gov
Address:	1445 N. Orchard Boise, ID 83706
Phone Number:	208-373-0274
Website:	<a href="http://www.deq.idaho.gov">http://www.deq.idaho.gov</a>
State:	Oregon
Agency:	Oregon Department of Environmental Quality
Name:	Sheree Stewart
Email:	stewart.sheree@deq.state.or.us
Address:	811 SW Sixth Avenue Portland, OR 97204-1390
Phone Number:	503-229-5413
Website:	<a href="http://www.deq.state.or.us">http://www.deq.state.or.us</a>
State:	Oregon
Agency:	Oregon Department of Human Services
Name:	Dennis Nelson

Phone Number:	541-726-2587 Ext. 21
State:	Alaska
Agency:	Department of Environmental Conservation
Name:	Suzan Hill
Email:	suzan_hill@dec.state.ak.us
Phone Number:	907-269-7521
Website:	<a href="http://www.dec.state.ak.us">http://www.dec.state.ak.us</a>
<b>National Rural Water Association Contact Information</b>	
Agency:	National Rural Water Association
Name:	Paul Strope
Title:	EPA Training & TA / Ground Water
Email:	ps@nrwa.org
Address:	2915 South 13th St Duncan, OK 73533
Phone Number (W):	580-252-0629
Fax:	580-255-4476
Website:	<a href="http://www.nrwa.org">http://www.nrwa.org</a>
<b>State Rural Water Association Contact Information</b>	
State:	Idaho
Name:	Melinda Harper
Title:	Ground Water Protection Specialist
Email:	harperm@idahoruralwater.com
Address:	802 West Bannock Street, Suite 208 Boise, ID 83702
Phone Number (W):	208-343-7001
Phone Number (W):	800-962-3257
Phone Number (C):	208-761-4118
Fax:	208-343-1866

Website:	<a href="http://www.idahoruralwater.com">http://www.idahoruralwater.com</a>
State:	Idaho
Name:	Glen Burcham
Title:	Ground Water Protection Specialist
Email:	gburcham@idahoruralwater.com
Address:	802 West Bannock Street, Suite 208 Boise, ID 83702
Phone Number (W):	208-343-7001
Phone Number (W):	800-962-3257
Phone Number (C):	208-761-4118
Fax:	208-343-1866
Website:	<a href="http://www.idahoruralwater.com">http://www.idahoruralwater.com</a>
State:	Oregon
Name:	Tim Tice
Title:	Lead Field Technician/Ground Water Technician
Email:	gwtech@diaaloregon.net
Address:	12312 Silverton Road NE PO Box 857 Silverton, OR 97381-0857
Phone Number (W):	503-873-8353
Fax:	503-873-8538
Website:	<a href="http://www.diaaloregon.net/~oawu">http://www.diaaloregon.net/~oawu</a>
State:	Oregon
Name:	Shawn Stevenson
Title:	Source Water Specialist
Email:	swpfsa@diaaloregon.net
Address:	12312 Silverton Road NE PO Box 857 Silverton, OR 97381-0857



Phone Number (W):	503-873-8353
Fax:	503-873-8538
Website:	<a href="http://www.dialoregon.net/~oawu">http://www.dialoregon.net/~oawu</a>
State:	Washington
Agency:	Evergreen Rural Water of Washington
Name:	Catherine "Kitty" Weisman
Title:	Source Water Protection Specialist
Email:	cweisman@erwow.org
Address:	PO Box 2300 Shelton, WA 98584
Phone Number (W):	800-272-5981
Phone Number (C):	360-280-3460
Fax:	360-462-9289
Website:	<a href="http://www.erwow.org/">http://www.erwow.org/</a>
State:	Washington
Agency:	Evergreen Rural Water of Washington
Name:	David Tysz
Title:	Source Water Protection Specialist
Email:	dtysz@erwow.org
Address:	PO Box 2300 Shelton, WA 98584
Phone Number (W):	800-272-5981
Phone Number (C):	360-280-3460
Fax:	360-462-9289
Website:	<a href="http://www.erwow.org/">http://www.erwow.org/</a>
<b>USDA Forest Service Regional Contact Information</b>	
Region:	Region 1 (Nez Perce NF & N)
Name:	Jon Haber

Title:	Regional Planner
Email:	jhaber@fs.fed.us
Phone Number (W):	406-329-3399
Fax:	406-329-3411
Website:	<a href="http://www.fs.fed.us">http://www.fs.fed.us</a>
Region:	Region 6 (OR & WA)
Name:	Donna Wians
Title:	Drinking Water Program Manager
Email:	dwians@fs.fed.us
Phone Number (W):	503-808-2526
Fax:	503-808-2511
Website:	<a href="http://www.fs.fed.us">http://www.fs.fed.us</a>
Region:	Region 1 (North Idaho)
Name:	Bruce Sims
Title:	Regional Hydrologist
Email:	bsims@fs.fed.us
Phone Number (W):	406-329-3447
Fax:	406-329-3171
Website:	<a href="http://www.fs.fed.us">http://www.fs.fed.us</a>
Region:	Region 4 (South Idaho)
Name:	Ken Heffner
Title:	Regional Hydrologist
Email:	kheffner@fs.fed.us
Phone Number (W):	801-625-5368
Fax:	801-625-5756
Website:	<a href="http://www.fs.fed.us">http://www.fs.fed.us</a>

<b>Bureau of Land Management Regional Contact Information</b>	
State:	Idaho
Program:	Soil, Water, Air Program
Name:	Ervin Cowley
Email:	ervin.cowley@blm.gov
Phone Number (W):	708-873-3810
Website:	<a href="http://www.blm.gov">http://www.blm.gov</a>

## **Resources**

United States Department of Agriculture, Forest Service. 1997. Land and Resource Management Plan Tongass National Forest, United States Department of Agriculture, Forest Service, Alaska Region.

George E. Dissmeyer, ed. 2000. Drinking Water From Forest and Grasslands: A Synthesis of the Scientific Literature, United States Department of Agriculture, Forest Service, Southern Research Station.

Prefontaine, Brandy and Dustin Walters. 2005. Stream Temperature Monitoring Report 1997 - 2002 Prince of Wales Island, Alaska, Thorne Bay Ranger District.

Idaho Association of Counties. Safe Drinking Water: Leadership, Accountability, Action.

United States Department of Agriculture, Forest Service. 1992. Channel Type User Guide Tongass National Forest, United States Department of Agriculture, Forest Service, Alaska Region.

## **Websites**

Bureau of Land Management: <http://www.blm.gov>

BLM Information on Salmonid Protection: <http://www.or.blm.gov/fcp/salmonids.htm>

United States Department of Agriculture, Forest Service: <http://www.fs.fed.us>

National Rural Water Association: <http://www.nrwa.org>

Evergreen Rural Water of Washington: <http://www.erwow.org/>

Idaho Rural Water Association: <http://www.idahoruralwater.com>

Washington DoH GIS Mapping information: <http://www4.doh.wa.gov/dw/swap/app/login.cfm?app=maps>

Oregon Association of Water Utilities: <http://www.dialoregon.net/~oawu>

Eugene Water and Electric Board: <http://www.eweb.org/>